

CLAIMS

What is claimed is:

1. A work cell for packaging materials comprising:
  - an inbound portion; and
  - an outbound portion;wherein said inbound portion and said outbound portion are positioned in at least a nearly abutting relationship, said inbound portion and said outbound portion being positioned at an angle relative to each other to provide the work cell with an ergonomic, space-saving configuration.

2. The work cell of Claim 1, wherein said angle is approximately 135°.
3. The work cell of Claim 1, wherein said inbound portion further comprises an inbound platform.
4. The work cell of Claim 1, wherein said inbound portion further comprises a front cradle for positioning a top portion of a packaging container towards a front side of said work cell.
5. The work cell of Claim 1, wherein said outbound portion includes an elongated table having an outbound cradle.
6. The work cell of Claim 5, wherein said outbound cradle may be positioned in a forward position and a rear position.

7. The work cell of Claim 1, further comprising a fastening device having:

a first head for applying at least one fastener to a packaging container; and

a second head for applying at least one fastener to said packaging container;

wherein the orientation between said first head and said second head may be altered according to the size and type of said packaging container used.

8. The work cell of Claim 7, wherein said packaging containers are transferred to and from said fastening device by a transfer device.

9. The work cell of Claim 7, wherein said fastening device includes at least one alignment device for properly positioning one or more packaging containers in relation to said fastening device.

10. The work cell of Claim 1, further comprising a mounting device for supporting materials for use in the operation of the work cell.

11. The work cell of Claim 1, further comprising a label holder for supporting labels to be placed upon one or more packaging containers.

12. The work cell of Claim 1, further comprising a compartment for storing materials used in the operation of said work cell.

13. The work cell of Claim 7, wherein said first head and said second head apply said fastener to said packaging container simultaneously.

14. The fastening device of Claim 7, wherein said first head is positioned approximate to a first alignment device and said second head is positioned approximate to a second alignment device to permit the work cell to process said packaging containers of an infinite length.

15. A work cell for packaging materials comprising:
  - an inbound portion for loading items within one or more packaging containers; and
    - an outbound portion having a processing region and an outbound region facilitating the application of identification labels to said containers;
    - wherein said inbound portion and said outbound portion are positioned in at least a nearly abutting relationship, said inbound portion and said outbound portion being positioned at an angle relative to each other of less than 180°.

16. The work cell of Claim 15, wherein said inbound portion and said outbound portion are positioned at less than a 135° angle to each other.

17. The work cell of Claim 15, wherein said inbound portion further comprises a front cradle for positioning a top portion of said packaging containers towards a front side of said work cell.

18. The work cell of Claim 15, wherein said inbound portion further comprises a rear cradle for supporting items of use in the operation of said work cell.

19. The work cell of Claim 15, wherein said outbound portion includes an elongated table having an outbound cradle.

20. The work cell of Claim 19, wherein said outbound cradle may be positioned in a forward position and a rear position.

21. The work cell of Claim 15, wherein said packaging containers are transferred to and from said processing region by a transfer device.

22. The work cell of Claim 15, wherein said processing region comprises a fastening table having:

a first head for applying at least one fastener to a packaging container;

a second head for applying said at least one fastener to said packaging container;

a lower guide rail assembly; and

an upper guide rail assembly;

wherein the orientation between said first head and said second head may be altered according to the size and type of said packaging container used, said first head and said second head applying said fastener to said packaging container simultaneously; and

wherein said lower guide rail assembly and said upper guide rail assembly aid in alignment of said packaging container between said first head and said second head and may be positioned according to the size and type of packaging container to be sealed.

23. The work cell of Claim 15, further comprising a mounting device for supporting materials for use in the operation of said work cell.

24. The work cell of Claim 15, further comprising a label holder for supporting labels to be placed upon one or more packaging containers.

25. The work cell of Claim 15, further comprising a compartment for materials used in the operation of said work cell.

26. The work cell of Claim 22, wherein said first head and said second head are aligned substantially vertically.

27. The work cell of Claim 22, further comprising a first fastening device associated with said first head and a second fastening device associated with said second head, said first fastening device being positioned in an orientation opposite to an orientation of said second fastening device.

28. The work cell of Claim 21, wherein said first head is proximate to said lower guide rail assembly and said second head is proximate to said upper guide rail assembly, said work cell operable to process said packaging container having an infinite length.

29. A method for packaging materials using a work cell comprising:  
loading items within a packaging container seated within an  
inbound portion of a work cell;  
securing said packaging container using a fastening device located  
within a processing region of an outbound portion of said work cell; and  
labeling said packaging container within a labeling region of said  
outbound portion;  
wherein said inbound portion and said outbound portion are  
positioned in at least a nearly abutting relationship, said inbound portion and said  
outbound portion being positioned at an angle relative to each other.

30. The method of Claim 29, wherein said securing step further comprises:

placing said packaging container upon a fastening table between a first head and a second head of said fastening device;

applying at least one fastener to a first surface of said packaging container by way of said first head;

applying at least one fastener to a second surface of said packaging container by way of said second head;

wherein the orientation between said first head and said second head may be altered according to the size and type of said packaging container.

31. The method for packaging materials using a work cell of Claim 29, wherein said angle is approximately 135°.